400 FLEXIBLE PAVEMENT

ITEM 401 - PLANT MIX PAVEMENTS - GENERAL

401.031 Use of Reclaimed Pavement

401.031 Use of Reclaimed Pavement. Delete entire section.

ITEM 402 - ASPHALT CONCRETE

402.01 Description

402.01 Description. Delete last paragraph.

ITEM 403 - ASPHALT CONCRETE

403.01 Description

403.01 Description. Delete last paragraph.

ITEM 404 - ASPHALT CONCRETE

404.01 Description

404.13 Spreading and Finishing

404.01 Description. Delete last paragraph.

404.13 Spreading and Finishing. The following sentence shall be added before the first paragraph of this section:

Prior to the paving of the surface course all castings shall be sealed with asphalt cement as directed by the Engineer.

ITEM 413 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

413.03 Sawing and Sealing Asphalt Concrete Pavement Joints

413.03 Sawing and Sealing Asphalt Concrete Pavement Joints. Construction details--Only wet cutting will be allowed. Excess selaant and sawing slurry shall be cleaned from pavement and removed.

450 RIGID PAVEMENT

ITEM 451 - REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

451.01 Description. The following paragraph shall be added to this section:

The edge of the new concrete pavement shall be thickened at intersecting streets and at each end of the improvement. The thickened edge shall be constructed in accordance with the detail shown on the contract plan. The cost of the extra thickness shall be included in the unit price bid for this item.

451.03 Equipment.

(a) Form Construction.

The following sentence shall be added to this subsection:

Straight forms 5 feet (2m) long may be used on curves where the radius is between 100 feet (30m) and 200 feet(60m).

451.06 Placing Concrete. Delete last paragraph and add the following paragraphs:

Concrete test specimens. All references to test beams and modulus of rupture in this section shall be replaced with test cylinders and break after 75% design strength is placed on cylinders.

Two test cylinders will be made from each 100 cubic yards ($90m^3$) or fraction thereof, that is incorporated in the work each day. Test cylinders will be made and tested in accordance with ASTM C 31 AND C 39.

Concrete which is acceptable for use in concrete pavement shall develop at the age of 7 days an average compressive strength of 2900 psi. and a minimum strength of 2400 psi. At the age of 28 days it shall develop an average compressing strength of 4000 psi. and a minimum strength of 3400 psi. Cylinders falling below the average compressive strengths

The work shall be planned so that the placing of concrete shall proceed from the lower to the higher points along the profile of the street. The placing of concrete may not proceed from higher to lower points when the grade is more than 3% without the express permission of the Engineer.

451.07 Placing Reinforcement. The following sentences shall be added to the second paragraph of this section:

"The mats of reinforcement shall be lapped at least 12 inches (300mm) when the lap is perpendicular to the center line of the pavement and at least 6 inches (150mm) when the lap is parallel to the center line. The mats shall be furnished in widths such that the lap does not occur at the longitudinal joint."

451.08 Joints.

(a) Longitudinal Joint. In second paragraph delete the work one-third after the phrase "minimum depth of" and replace with one and one-half inches (38mm).

Delete last sentence of second and third paragraphs and add the following sentence to these paragraphs:

The width shall be 1/4 inch (6mm).

(c) Expansion Joint. Transverse expansion joints shall be constructed in strict accordance with ODOT Standard Construction Drawings BP-2.1 and BP-2.2, and at the locations shown on the Plan.

(d) Contraction Joint. Change the first sentence of this sub-section to read:

Contraction joints shall be sawed as specified to the minimum depth of one and one-half inches (38mm) and a width of one-fourth inch (6mm).

The following sentence shall be added to this sub-section:

Contraction joints shall be constructed approximately 15 feet (5m) apart.

451.09 Finishing. Delete the last paragraph of this section.

451.11 Removing Forms. Forms shall not be removed until 12 hours after the concrete has been placed. During construction, when the temperature is below 50° F. (10°C.) the forms shall not be removed in less than 48 hours. Forms shall be removed in such a manner that no damage will occur to the pavement. After the forms have been removed, the sides of the slab shall be cured as outlined in 451.10.

ITEM 452 - PLAIN PORTLAND CEMENT CONCRETE PAVEMENT

452.01 Description

452.01 Description.

(b) Transverse contraction joints and standard longitudinal joints shall be constructed in accordance with Section 451.08.

ITEM 499 - CONCRETE GENERAL

499.04 Equipment

499.06 Mixing Concrete

499.07 Admixtures

499.04 Equipment. Add the following sub-paragraph (c) to this section:

(c) Mobile volumetric batching and continuous mixing plant.

Mobile mixers shall be approved types capable of producing thoroughly mixed and uniform concrete within the specified mixing period, and of discharging and distributing the mixture without segregation on the prepared grade.

The mixing mechanisms, calibrated proportioning devices and equipment dial scales for each mobile mixer shall be inspected and sealed by the City approved laboratory for conformance with ASTM C685-71T. The sealing of the mixer shall be performed at no cost to the City.

The supplier's central loading plants or loading pads utilized for the loading cycle of the mobile mixers shall meet the requirements of ASTM C94-71.

The specified recommendations of the equipment manufacturer in the operation of the equipment and the calibration and use of the various equipment control devices necessary to produce City of Cincinnati specification concrete shall be made available to the City approved laboratory during the sealing of the mixer equipment and at such other times as recalibration of controls of the equipment are necessary.

Concrete mixed with mobile volumetric mixing plant under this item shall comply with the strength requirements for acceptance under ASTM C685-71T and shall be proportioned to meet the design strength requirements of an overdesign factor of 1.34 consistent with obtaining a coefficient of variation of the tested concrete of 20%. This coefficient of variation shall prevail until a history of use of the individual plant within a six month period proves otherwise to the satisfaction of the City Engineer.

499.06 Mixing concrete. Delete second last paragraph.

Consideration shall be given to any air entraining properties contained by the water-reducing retarder admixture specified below or by any admixture used in the concrete mix, so as not to exceed the allowable air.

The water-reducing admixture to be used in the concrete mix shall conform to the requirements of ASTM Specification C 494-63T.

The Contractor shall submit to the Engineer actual test dates from approved laboratory evidencing that the above ASTM requirements have been met with locally available materials.

The reference concrete used to determine the efficacy of this admixture shall be the normal Class "C" concrete.